Work Order ID 62600

October 5, 2010 10:28:25 AM



Page 1

Required Date: 10/19/10

Item ID:

D206-667-103BL

'Accept

Setup Start

Stop



Revision ID:

Item Name:

Crosstube Fwd, Blue

Start Date:

10/05/10

QC:

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Revision Nbr

Date: 10/10/05Tooling:

SPC (Y/N): Date:

0.00

Date: Date:

Start Run



Stop

Sequence ID/ Work Center ID

Draw Nbr

Operation Description

Set Up/ Run Hours Tool ID

Tool # Plan

Accept Qty Code

Reject Qty

Reject Number

Insp. Stamp

D206-667-143

C

100

Document Control

DOCUMENT CONTROL

Memo

0.00

Photocopy bluefile and create labels as per PPP D206-667-103 CHG004

810/11/03

ar BG 10-11-03

110

Packaging Packaging

Pick Kit Packaging

Memo

0.00

0.00

120

CNC Bend 2

CNC Alpha 160 Bender

Memo

BENDING MACHINE - CROSSTUBES

0.00

0.00

Bend tube as per Dwg D206-667-143 using CNC bender program

10-10-21

EZ 10-10-01

Dart Aerospace	e Ltd
----------------	-------

W/O:												
DATE	STEP	1	PR	OCEDURE CH	ORK ORDER CHA		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
		!			40.00						<u>/</u>	
		1										
		l .										
		!										
		!										
	<u> </u>	!										
Part No		P	AR #:	Fault Ca	tegory:	NC	R: Yes I	No DQA	۸:	_ Date: _		
Resolution:				Disposit	QA:	QA: N/C Closed: Date:						
NCR:		i		WORK OR	DER NON-CONFO	RMANCE	(NCR					
DATE	CTED	Description	of NC	Corrective Action Section E			Verit		ation	Approval	Approval	
DATE	STEP	Section /	A	Initial Chief Eng	Action Descript Chief Eng	tion	Sign & Date	Section		Chief Eng	QC Inspector	
•			ļ	ļ								
			1									
			1									
			1									
			1									
			· · · · · · · · · · · · · · · · · · ·			***						
•			1									
										:		

Work Order ID 62600 October 5, 2010 10:28:26 AM											Page 2	
Item ID: Revision ID:	D206-667-10	03BL		Accept					Setup			
Item Name: Start Date: Required Date: Reference:	Crosstube Fwo 10/05/10 : 10/19/10	d, Blue Start Qty: 1.00 Req'd Qty: 1.00			Cust Item I Customer:	D:			_	Stop		
Approvals:	Process Pla	in:	Date:	Tooling: SPC (Y/N):		ate:			Run	Start Stop		
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #		Accept Qty	Rej Qty		Reject Number	Insp. Stamp
130 		QC15- Crosstube Dimen Memo	sional Check	0.00	75/01		(<u>u</u>				

Quality Control

Dart Ae	rospace	Lta										
W/O:			ł	WORK ORDER CHANGES								
DATE	STEP		PR	OCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
			!					,	_			
			1					• 9				
		· ·	1									
Part No	•		PAR #:	Fault Category:	NCR: Ye	s No DO	QA:	Date: _				
Resolution:			Disposition:	QA: N/C	Closed:		Date: _					
NCD.		-		WORK ORDER NON-CON	FORMANCE (NO	CR)						

NCR:		WORK ORDER NON-CONFORMANCE (NCR)									
		Description of NC		Corrective Action Section B		Verification	Approval	Approval			
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector			
							and a second	The second			

		The state of the s				,					
	ļ	·									
			·								
<u>.</u>	,	,									
*		:									
	3		4								

Page 3

October 5, 2010 10:28:26 AM

Item ID:

D206-667-103BL

Accept



Setup Start



Stop

Revision ID:

Item Name:

Crosstube Fwd, Blue

Start Date:

10/05/10

Start Qty: 1.00

Required Date: 10/19/10

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan: _____ Date: Tooling:

Date:

Date:

Run



Stop

Start

Sequence ID/ Work Center ID

140

Crosstubes Crosstubes

Operation Description Set Up/ Run Hours

SPC (Y/N):

Tool ID

Tool # Plan Code Accept Oty

Reject Qty

Reject Number Stamp

Insp.

Crosstubes

QC: Date:

0:00

0.00

1-Drill holes & ream using drill Jig DT8541 & DT8542 as per Dwg D206-667-143. Drill all (3) top holes.

3-Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins.

4-Drill pilot holes using drill Jig DT8541 & DT8542 as per Dwg D206-667-143. Drill only the top (2) holes.

5-Drill pilot holes as per Dwg D206-667-143. Drill only the top (2) holes.

6-Drill Fwd rivet holes using drill Jig DT8787FWD as per Dwg D206-667-143. Note: Fwd side has 3x top holes.

7-Drill Aft rivet holes using drill Jig DT8787AFT as per Dwg D206-667-141.

8-C'sink holes as per Dwg D206-667-143. Allow rivet to sit below surface to compensate for paint.

9 -Scribe part # and batch # using vibrating stylus as per Dwg D206-667-143 Inside of Cuff(Donot engrave on outside of tube)

10-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D206-667-143

10-10-27

W/O:			WORK ORDER CHANGES										
DATE	STEP	ı		EDURE CH	ANGE	Ву	,	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
		-											
		1											
											,		
Part No	:	P	AR #:	Fault Ca	tegory:	_ NCR: Y	es N	o DQ .	A:	Date:			
	R	esolution:		Disposition:				QA: N/C Closed: Date:					
NCR:			W	ORK OR	DER NON-CONFORM	ANCE (N	CR)						
DATE	STEP	Description	of NC			ion B		Verification Approval Ap			Approval		
DAIL	SILF	Section A		Initial Chief Eng	Action Description Chief Eng		gn & late	Secti	ion C	Chief Eng	QC Inspector		
	i												
		1											
		1	1										
			1										
					·			,					
					·								
					·								

October 5, 2010 10:28:26 AM

Item ID:

D206-667-103BL

Accept



Setup Start



Revision ID:

Item Name: Crosstube Fwd, Blue

Required Date: 10/19/10

Start Date:

10/05/10

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan: _____ Date: ____

OC:

Date:_____

Tooling: SPC (Y/N):

Date:

Date: _____

Run

Start

Stop

Stop



Sequence ID/ Work Center ID

150

HandFXtube

Hand Finishing Crosstubes

Operation Description

Memo

Crosstubes Chemical Conversion

Set Up/ **Run Hours**

0.00

Tool ID

Tool # Plan Code Accept Qty

Reject Qty

Reject Insp. Number Stamp

160

QC

Quality Control

QC3-Inspect Part Finish

Memo

0.00

8 10/10/28

0.00

170

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

5 10/10/26

0.00

Memo

W/O:			WORK ORDER CHANGES										
DATE	STEP	1	PROC	EDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng /	Approval QC Inspector			
		ì							Prod Mgr	QO MOPOSION			
		ţ											
		i											
				*									
		!											
Part No	:	PAR	\ #:	Fault Cat	egory:	NCR: Yes	10 DQ /	A:	_ Date: _				
Ì					on:								
NCR:		ļ	WORK ORDER NON-CONFORMANCE (NCR)										
DATE	CTED	Description of	NC	NC Corrective Action Section			Verific	cation	Approval	Approval			
DATE	STEP	Section A		Initial Chief Eng	Action Description Chief Eng	Sign & Date	Secti		Chief Eng	QC Inspector			
		1											
		1				į							
					- Construction of the Cons								
		1											
		İ											
		1											
		ı											
	, .			1			1			;			

Work Order ID 62600

Page 5

October 5, 2010 10:28:26 AM

Item ID:

D206-667-103BL

Accept

Setup Start

Stop



Revision ID:

Item Name: Crosstube Fwd, Blue

Required Date: 10/19/10

Start Date:

10/05/10

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Process Plan: _____ Date: ____

Tooling:

SPC (Y/N):

Date: Date: ___

Tool # Plan

Code

Start Run

Reject

Qty

Stop



QC: _____ Date: ____

Sequence ID/

Work Center ID

180

Outsource2

Outsource process - NDT

Operation Description

Outsource process - NDT per QSI038 4.1

Memo

CROSSTUBES

Set Up/

Run Hours

PD: 12828

0.00

Accept

Qty

CZ10/10/28 1

Reject

Number

Insp.

Stamp

190

Packaging Packaging

Packaging

Memo

0.00

0.00

Ensure copy of NDT results attached to work order.

200

Memo

QC5- Inspect part completeness to step on W/O

0.00

M 10 10 29 (1)

0.00

Quality Control

Dart Aeros	pace	Ltd
------------	------	-----

W/O:			WORK ORDER CHANGES													
DATE	STEP	Р	ROCEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector							
		1														
		!														
Part No		DAD #	Fault Car	to go ny	NCB: Voc	No DO	Δ.	Data								
Part NO					NCR: Yes No DQA: Date: QA: N/C Closed: Date:											
NCR:			WORK OR	DER NON-CONFORMA	ANCE (NCR)										
DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Section Description Chief Eng	ion B Sign & Date	Verification Section C		Approval Chief Eng	Approval QC Inspector							
			Office Ling	Office Eng	54.0											
		!														
								f								
		1														
	1	1	1		1			İ								

•			
**7 1 -	$\Delta = 1$	IT	62600
WARK	•)ra	er III	n/niiii
VVUIN	VIU		04000



Page 6

October 5, 2010 10:28:26 AM

Item ID:

D206-667-103BL

Accept



Setup Start

Stop



Revision ID:

Start Date:

Item Name: Crosstube Fwd, Blue

10/05/10

Start Qty: 1.00 Req'd Qty: 1.00

Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Required Date: 10/19/10

Process Plan:

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Start Run



Stop

Sequence ID/

Operation Work Center ID Description Set Up/ **Run Hours**

Tool # Plan

Code

Reject Accept Qty Qty

Reject Number Stamp

Insp.

210

SprayPaint **Spray Painting** SprayPaint

Memo

0.00

0.00

1-Prime inside and outside crosstube as per OSI 005 4.2

2-Paint outside crosstube with White Imron as per QSI 005 4.2

Start Nime:

Fininsh Time:

PAINT:

Start Time: Finish Time:

220

QC14- Inspect Spray Paint

0.00

0.00

QC

Quality Control

Memo

Wrap in plastic bag to protect from scratches

B 10 11 02 0

W/O: WORK ORDER CHANGES													
DATE	STEP		PROCEDURE			Ву	Date (Qty	Approval Chief Eng /	Approval QC Inspector			
									Prod Mgr	<u> </u>			
		1								li			
)		l .				# # # # # # # # # # # # # # # # # # #							
,													
Part No	·	PAR	#: Faul	t Category:	NCI	R: Yes N	lo DQA:		_ Date:				
Resolution:			Disp	QA:	QA: N/C Closed: Date:								
NCR:		1	WORK ORDER NON-CONFORMANCE (NCR)										
DATE	STEP	Description of	NC	Corrective Acti		0:	ion	Approval	Approval				
DAIL	J.L.	Section A	Initia Chief E			Sign & Date	Section	С	Chief Eng	QC Inspector			
		1											
		1											
		ı											
		1					3		,				
		Ţ											
	·												
		1											
•		1											



Page 7

October 5, 2010 10:28:26 AM

Item ID:

D206-667-103BL

Accept



Setup Start



Revision ID: Item Name:

Crosstube Fwd, Blue

Start Date:

10/05/10

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan: _____ Date: ____

QC: Date:

Tooling:

SPC (Y/N):

0.00

0.00

Date:

Date:

Start

Run



Stop

Stop

Sequence ID/ **Work Center ID**

Required Date: 10/19/10

Operation Description Set Up/ **Run Hours** Tool ID

Tool # Plan Code Accept Qty

Reject Reject Qty

Insp. Number Stamp

230

Crosstubes Crosstubes

Crosstubes

Memo

1-Install support using 0.03" to 0.06" thick layer of magnobond 6398 per QSI 015. Let cure for 12h after installation and prior to packaging. Note: (2) Aft

holes should be facing up. 15580, exp. 07

2-Install supports and clamps as per Dwg D206-667-143. Torque clamps to 80-100 in lb

3-Install nut plates as per Dwg D206-667-143. Touch-up rivet heads with Imron paint.

240

QC5- Inspect part completeness to step on W/O

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES													
DATE	STEP	PF	ROCEDURE CHA	NGE	E	Зу	Date	Qty	Approval Chief Eng /	Approval QC Inspector					
									Prod Mgr						
		1													
		!													
										*,					
		1				į									
Part No	•	PAR #:	Fault Cate	gory:	NCR:	Yes N	o DQA	:	_ Date: _						
		esolution:													
NCR:			WORK ORD	ER NON-CONFORM	MANCE (NCR)									
DATE	OTED	Description of NC	NC Corrective Action		ection B		Verifica	ation	Approval	Approval					
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	י ו	Sign & Date	Sectio		Chief Eng	QC Inspector					
		!													
		ŗ													
		,													
		1													
		1													

Work Order ID 62600



Page 8

October 5, 2010 10:28:26 AM

Required Date: 10/19/10

Item ID:

D206-667-103BL

Accept



Setup Start



Stop

Revision ID:

Crosstube Fwd, Blue Item Name:

Start Date:

10/05/10

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

		-
AD	prov	als:

Process Plan:

Date:

Date: Tooling:

SPC (Y/N):

Date:

Date:

Run Start



Stop

Sequence ID/ **Work Center ID**

250

Packaging

Operation Description

Pick Kit

Memo

Set Up/ **Run Hours**

0.00

0.00

Tool ID

Tool # Plan Code

Accept Qty

Reject **Oty**

Reject Number Stamp

Insp.

Packaging

260

QC Quality Control QC4-100% Inspect kits for completeness

Memo

270

Packaging Packaging

Packaging

Memo

0.00

0.00

Identify and pack for shipping as per PPP D206-667-103 Location:

PPP Rev:

@/ne/3 cf____

W/O:				W	ORK ORDER CHANG	ES					
DATE	STEP	1	PR	OCEDURE CH		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
		į								•	
		1							1		
		1									
		:									
Part No	:	PA	AR #:	Fault Cat	egory:	_ NCR:	Yes N	lo DQA :		_ Date: _	
Resolution: Disposition:											
NCR:		,	,	WORK ORI	DER NON-CONFORMA	ANCE (NCR)				
DATE	0750	Description	of NC	C Corrective Action Section 6				Verifica	tion	Approval	Approval
DATE	STEP	Section A	\ 	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Section	1 C	Chief Eng	QC Inspector
)									
		1									
		}									
		į									
			1								
			1								
			······································								
			i								
,			1								

Work Order ID 62600

October 5, 2010 10:28:26 AM



Page 9

Item ID:

D206-667-103BL

Accept

Setup Start



Revision ID: Item Name:

Crosstube Fwd, Blue

Stop

Start Date:

10/05/10

Start Qty: 1.00 **Req'd Qty:** 1.00

Date:

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:_____

Tooling:

Date:

Start

Stop

Run



Required Date: 10/19/10

SPC (Y/N):

Date:

Reject Insp.

Sequence ID/

Work Center ID

Operation Description

QC21- Final Inspection - Work Order Release

Set Up/ Run Hours

Tool ID

Tool # Plan

Accept . Code Qty

Reject Qty

Stamp Number

280

Memo

0.00

0.00

Quality Control

W/O:			and the section of th	W	ANGES						
DATE	STEP		PROCEDURE CHANGE							Approval Chief Eng / Prod Mgr	Approval QC Inspector
			[-	
										· 	
			!								
			!								
			Angelon								
)								
Part No	:		PAR #:	Fault Cat	egory:	NC	R: Yes I	No DQA	ı:	_ Date: _	
		Resolution: QA: N/C									
NCR:			į	WORK ORI	DER NON-CONFO	ORMANCE	(NCR)			
DATE	STEP	Description	on of NC	Corrective Action				Verific	ation	Approval	Approval
DATE	SILF	Section		Initial Chief Eng	Action Descrip Chief Eng	otion 	Sign & Date	Section	on C	Chief Eng	QC Inspector
			†								
			1								
	10th 1	-	1								
								'			
			ļ								
			!								
									· · · · · · · · · · · · · · · · · · ·		
		·	ı								
			1								

October 5, 2010 10:28:25 AM

Work Order ID: 62600

Parent Item:

D206-667-103BL

Parent Item Name:

Crosstube Fwd, Blue



Start Date: 10/05/10

Required Date: 10/19/10

Start Qty: 1.00

Required Qty: 1.00

_				
Co	m	me	nts	:

IIP RevA: new issue DD .09.11.23 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Status Issued
D206-667-103TRN	14	Manufactured	No			110	Each	2.0000	1	1 EZ	10-1	0-21.
				Locatio	<u>on</u>	Loc	Oty	Loc Code				•
	E	362630		LG	61426 61428		2 1 1				_ _ _	A
D2873-043		Manufactured	No			230	Each	16.0000	2	2	m	10 10 0
B	# C3380			<u>Locatio</u> ST	<u>on</u>	Loc	<u>Qty</u> 16	Loc Code				
D2873-045	INN 8060 100 184	Manufactured	No		60981	230	16 Each	14.0000	2	2	h	N 10-11.
	B#C2378			Locatio	<u>on</u>	Loc	Oty	Loc Code				
	6.09219	- ,		LG	60982		14 14					
D2891-1		Manufactured	No			230	Each	53.0000	2	2		10-11.
2.25 Support Blue	•			Locatio	<u>on</u>	Loc	Oty	Loc Code				
				LG	46150		53		_		_	
					46159 50952		7 18		_	W.Y.		
					53773 55786_		20		_		_	

Dart Aerospace	: L	td
----------------	-----	----

W/O:	•			WORK ORDER CHANGES											
DATE	STEP		PRO	OCEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector					
					· · · · · · · · · · · · · · · · · · ·										
·			· · · · · · · · · · · · · · · · · · ·						4	ļ					
Part No	:	P	PAR #: Fault Category: NCI			_ NCR: Ye	NCR: Yes No DQA: Date:								
Resolution: Disposition: QA:							Closed:		Date: _						
NCR:			1	WORK OR	DER NON-CONFORM	ANCE (NO	R)								
DATE	STEP	Description		NC Corrective Action Doc					Approval	Approval					
	0.2.	Section	A	Initial Chief Eng	Action Description Chief Eng	Dat		tion C	Chief Eng	QC Inspector					
			1							ļ					
			1												
			ļ												
			1												
			1												
,			1												
			!												

October 5, 2010 10:28:25 AM

Work Order ID: 62600 Parent Item: D206-667-103BL Parent Item Name: Crosstube Fwd, Blue		II UNIO 1881 DILIK DOŽI 1881 II kari dalih dili kario 1881 dili				art Date: 10		Required Date: 10/19/10 Required Qty: 1.00
D3595-063-395 Manufactured	No		230	Each	14.0000	4	4	M 10 -11 .02
RUBBER CUSHION 13 ⁴⁴ 63368		Location FP 44667	<u>.</u> <u>Lo</u>	10 10	Loc Code		· · · · · · · · · · · · · · · · · · ·	
cut (4)0.063" X 3.95" MS20601-AD4W8 Purchased	No	ST 60585	230	4 4 Each	174.0000	14 	14	- W 10.01.03
B 115855		<u>Location</u> ST322 108521 112203	Lo	oc Otv 174 70 104	Loc Code			
MS21920-20 Purchased Clamp (per MIL-DTL-8783C)	No	112203	230	Each	85.0000	4	4	M 10.10.02
		Location LG 112624 114687 114779 115057 115736	<u>L</u> .	85 2 1 6 26 50	Loc Code			

Dart Aerospac	e Ltd
---------------	-------

W/O:			WORK ORDER CHANGES													
DATE	STEP	1	Ву		Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector								
		1														
		. 1														
		1														
		1														
Part No):	P/	AR #:	Fault Cat	egory:	NCR: Y	es N	o DQ	A:	Date:						
	Re	esolution:		Dispositi	on:	_ QA: N/0	Clos	sed:		Date: _						
NCR:				WORK ORI	DER NON-CONFORMA	NCE (N	CR)			, ·						
		Description			Corrective Action Section			Verific	ration	Approval	Approval					
DATE	STEP	Section A	A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date		Verification Section C		Chief Eng	QC Inspector					
		1														
		!	1													
			1								į					
			:													
			i		·			:								

October 5, 2010 10:28:25 AM

Work Order ID: 62600

Parent Item:

D206-667-103BL

Parent Item Name:

Crosstube Fwd, Blue



Start Date: 10/05/10

Required Date: 10/19/10

Start Qty: 1.00

Required Qty: 1.00

BOLT

Bolt

Purchased

No

250

Each

78.0000

Loc Code

00 4

4

4

18/11/38

AN5-32A

Purchased

Purchased

No

No

112933 114437 114941

Location

ST339

250

Loc Qty

300.0000

4 |**|||**| 4/1/11/29

Location	Lo	c Qty	Loc Code
ST340		300	
114056		40	
114405		50	
115016		50	
115108		50	
115589		60	
115698		50	
	250	Each	139.0000

9.0000 10 10 10 Mus936 /J/n /38

-ANS-7A

Location ST337

113149

Loc Oty 139 139 Loc Code

Dart Ae	rospace Ltd		1						
W/O:				WORK ORDER	CHANGES				
DATE STEP			PR	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
			ı				:		
			1						
			I]	
			i						
Part No	:		PAR #:	Fault Category:	NCR: Yes	No DQ	A :	Date: _	
	Resolu	ution:	ļ .	Disposition:	QA: N/C C	Closed:		Date: _	
NCR:		, , , , , , , , , , , , , , , , , , , ,	l	WORK ORDER NON-CON	IFORMANCE (NC	R)			. ,
DATE	CTED	Descript	tion of NC	Corrective Actio	n Section B	Verific	ation	Approval	Approval

		WORK ORDER NON-CONFORMANCE (NCR)						
	Description of NC		Corrective Action Section B		Varification	Approval Chief Eng	Approval QC Inspector	
STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C			
	ı							
	l							
	1			:				
			TT WT					
	1							
	ļ							
	+							
	·							
	Y							
	STEP	STED Description of NC	STEP Description of NC Section A Initial Chief Eng	STEP Description of NC Section A Initial Chief Eng Chief Eng Chief Eng Chief Eng Ch	STEP Description of NC Section A Initial Chief Eng Chi	STEP Description of NC Section A Corrective Action Section B Verification Section C Section A Chief Eng Ch	STEP Description of NC Section A Initial Chief Eng Chief Eng Sign & Date Chief Eng Chi	

.Picklist Print

Page 4

October 5, 2010 10:28:25 AM

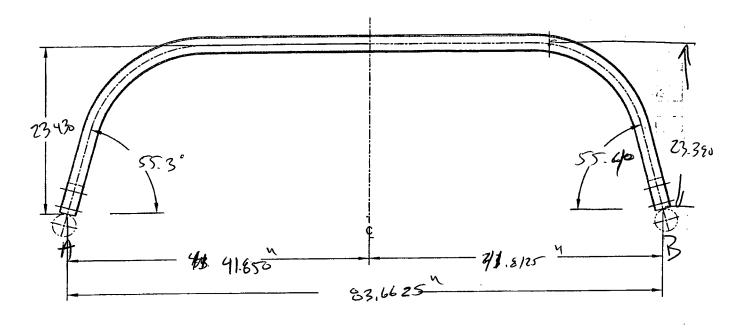
Work Order ID: 62600 D206-667-103BL Parent Item: Required Date: 10/19/10 Parent Item Name: Crosstube Fwd, Blue **Start Date:** 10/05/10 Start Qty: 1.00 Required Qty: 1.00 AN960JD516 250 Each 34.0000 NAS1149D0563J Purchased No Washer Location Loc Qty Loc Code ST 34 103694 18 12 107534 109287 4 250 86.0000 AN970-4 Purchased No Each 12 12 Washer Location Loc Oty Loc Code ST349 86 36 115531 50 115621 Purchased No 250 Each 899.0000 Loc Qty Loc Code Location ST139 26 114813 26 ST300 873 373 115156 115594 500

Dart	Aeros	pace	Ltd
_ ~			

W/O:				V	ORK ORDER	CHANGES					
DATE	STEP	İ	PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
				· · · · · · · · · · · · · · · · · · ·						1 Too Mg	
		ı									
		1									
		1									
Part No	•	P	AR #:	_ Fault Ca	tegory:	NC	R: Yes N	lo DQA	Λ:	_ Date: _	
	R	esolution:	Disposition: QA			A: N/C Closed: Da					
NCR:			W	ORK OR	DER NON-CON	FORMANCI	E (NCR)				
DATE	STEP	Description	of NC Corrective Action						Approval	Approval	
	0.2.	Section A		Initial Chief Eng	Action Des	eription ^{1g}	Sign & Date	Section	on C	Chief Eng	QC Inspector
		,									
		,						4		i	
		,									
			1								
			i								
			1	1							1

DART AEROSPACE LTD	Work Order:	,
Description: Crosstube High Fwd (206L)	Part Number:	D206-667-103
Inspection Dwg: D206-667-143 Rev: C		Page 1 of 1

Required Dimension	Min	Max
Height	23.39	23.65
1/2 Span	41.79	42.05
Angle	54	56
Total Span	83.58	84.10



Comments	

QC15 Inspection	0
Date	10/10/25

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
В	09.06.26	Dimensions updated per Dwg Rev C	KJ	1
c	09.10.22	Minimum height dimension revised	KJ	1/



Item	Qty -143	Part Number	Description
1	х	D206-667-143	CROSSTUBE ASSEMBLY (206L HIGH FWD)
2	1	D6002-115	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2891-1	SUPPORT
6	4	D3595-063-395	RUBBER CUSHION
7	4	MS21920-20	CLAMP (OR MS21920-21)
8	14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RB 0-120- 023 ADHESIVE (TEXTRON/BELL SPEC. 299- 947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

D

1) MATERIAL: MANUFACTURED FROM D6002-115

FINISHED LENGTH = 104.98±0.020

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2 PAINT OUTSIDE PER DART QSI 005 4.2

- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- UNITS: INCHES UNLESS OTHERWISE NOTED.
- BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-143" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 15.5 lbs

8

- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED, BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 10 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-20 CLAMPS (OR -21) WITH D3595-063-395 RUBBER CUSHIONS TO SECURE THE D2891-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

Si : : : : : : P ... E' (UYCOW SUBJECT TO V 132 WO. NO._ 62600 CZIOIOIOS



D

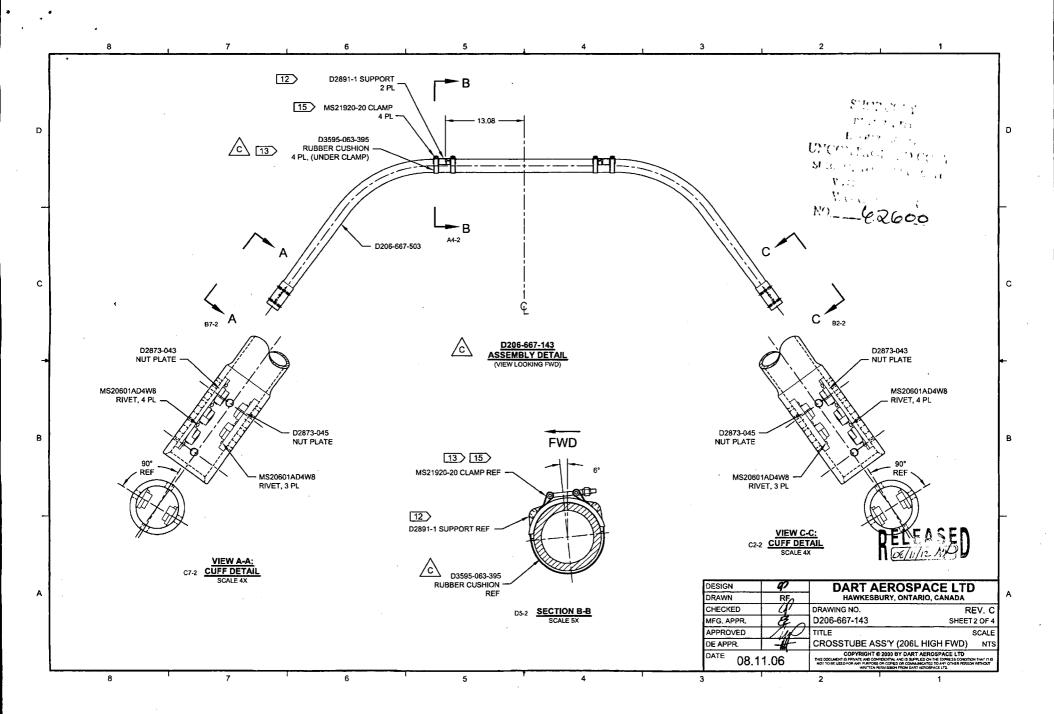
С

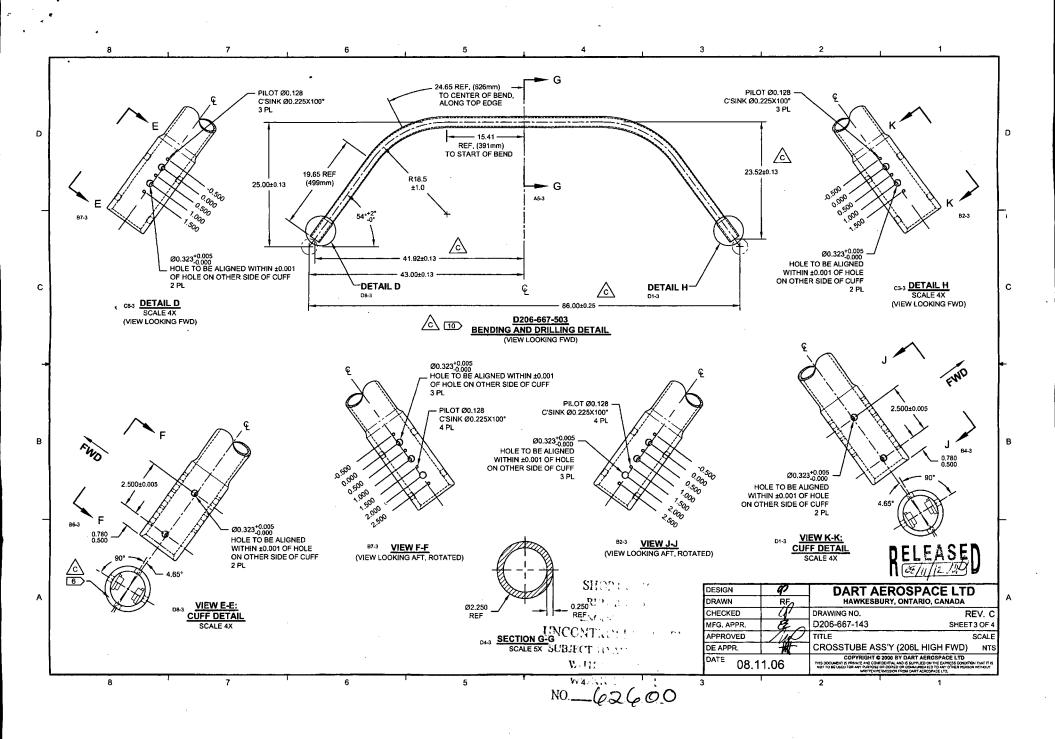
В

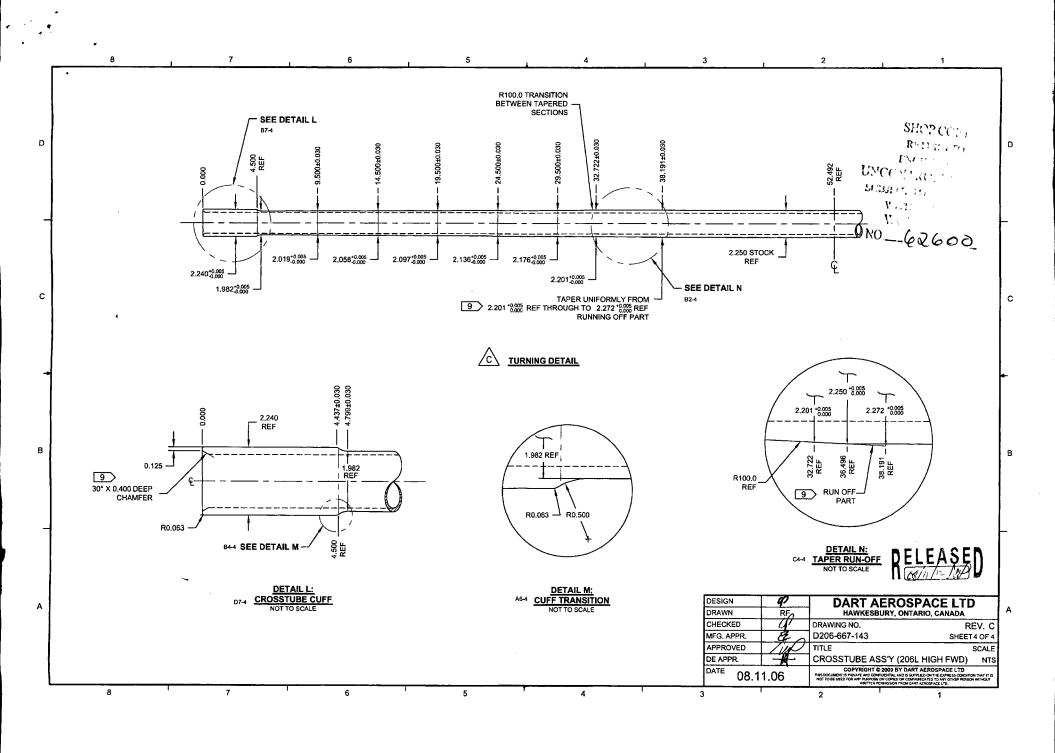
С	REVISE GENERAL NOTES/PART LIST (ZN D7-1); RF 08.11.06 REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. D3595-063-395 WAS D2856-400-694 (ZN D6-2 & A5-2); REMOVED REF. & ADD TOLERANCE (ZN D3-3, C4-3, C5-3);					
			(ZN A8-3) PER NCR 210; MOVED PDATED TOLERANCE TO SHEET 4.			
В	ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKUDTUBES			PH	05.07.26	
Α	NEW ISSUE			CP	00.11.17	
REV.	DESCRIPTION			BY	DATE	
DESIGN		P	DART AEROSPA	ACE	LTD	
DRAWN		RF,	HAWKESBURY, ONTARI	O, CAN	ADA	
CHECKE	D	a,	DRAWING NO.		REV. C	
MFG. AF	PPR.	80	D206-667-143 SHEET 1 OF			
APPRO\	/ED	111	TITLE SCAL			
DE APPI	R.	-#-	CROSSTUBE ASSY (206L F	1IGH F	WD) NTS	
DATE	08.1	1.06	COPYRIGHT © 2000 BY DART ARROSPACE LTD THIS DOCUMENT IS REVIVED AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONSTRONT HAS IT IS NOT TO BE USED FOR ANY AND CONFIDENTIAL ON COMMENTED TO ANY OTHER PERSON WITHOUT			

6

2









LIQUID PENETRANT TEST REPORT

P- 15032

ACUREN		•	i
_ _ _		PAGEOF	,
CLIENT	Dart Aerospace	DATE OCT 28 2010 TIME AM & PM	۵
7	Linda Lacelle	ACUREN JOB NO. 188-10-0755	
ATTENTION 1	1270 Aberdeen St.	POWO No. 1/28/28	
Address _	7	Work Location + Hawkes Burg	
	Hawkesburg	ACCEPTANCE STD. ISTM 1414/61-038 REV./DATE 2005	
_	The Horas Comme	D 206-667-103 BL	
PROJECT E	x-Tubes # D206-667-103 8		
ITEM(S) EXAMINED	Job#5:62310,62743,627	7-1,6500,61601	
JOB DESCRIPTION	N PROCEDURE No. LT-COCZ REV./DATE	E TECHNIQUE NO. LT TECH CZ REV./DATE	
	06-667-103 3 D206-667-103 3L	MATERIAL ALODINGO ALON THICKNESS INTE	
SCORE 111-	FINDER CASE I'M A SECOND	ETRANT TUSPECTION CARRIED OUT ON	
SCOPE VET	TOTALEN CONTRACTOR	IF X-TURFO	
	L EXTERNAL SURFACE OF TH		
TEST DETAILS	DVE HADEOCENE	■ WATER WASH □ SOLVENT REMOVABLE □ POST EMULS	SIFIED
METHOD FAMILY BRAND	PFLUORESCENT	BI ACK LIGHT S/N 2178 □ OUTPUT > 1000 μW/cm² □ AMBIENT < 2	fc
FAMILY BRAND PENETRANT	70 GAZETY MINIMUM DWELL TIME TOYS MIN	N. LIGHTING EQUIP. FLASHLIGHT TROUBLELIGHT OUTPUT>100 fc SUF	
PENETRANT REMOVE	R 1120 MINIMUM DRY TIME >10 MIN	N. OTHER CALL OCT 15th Joic CHANGE POTE PORT	
DEVELOPER	SKD 52 MINIMUM DWELL TIME 10 MIN	N. LIGHT METER S/N CAL DUE DATE A A .)	UI
DEVELOPER TYPE	S Non Aqueous ☐ Aqueous ☐ Dry		
TEST SURFACE	AS GROUND AS WELDED	MACHINED ☐ SHOT BLASTED ☐ CLEAN BARE METAL	.L
SURFACE CONDITION SURFACE TEMPERATE	N	WIACHINED CHO. BEIGHES	
RESULTS-	(METRIC MPERIAL)		
PENET ON X-1 Solo # 50 62 62 62 62 62 Scope of Services	1310: Acceptable 1743: Acceptable 1744: Acceptable 1600) Acceptable 1601: Acceptable	holes no circumstances shall such corriens extend beyond the performance of the remarked services. It is expressly in	nderstood
The agreement of Activen Gre that all descriptions, commer representations or warrantie, data or other information pro Standard of Care In performing the services pr implied, is made or intended	rnts and expressions of opinion reflect the opinions or observations of Activet Group I es. Activen Group Inc. is not assuming any responsibilities of the owner/operator and rovided by Activen Group Inc. In no event shall Activen Group Inc.'s liability in respect provided, Activen Group Inc. uses the degree, care and skill ordinarily exercised under	Inder no circumstances shall such services extend beyond the performance of the requested services. It is expressly in Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be cons I the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a re- ct of the services referred to herein exceed the amount paid for such services. similar circumstances by others performing such services in the same or similar locality. No other warranty, express	result of th
SIGNATURES	The state of the s	fift which the state of the sta	
CLIENT REPRESENT	HATIVE MONTH PRINT	SIGNATURE REPORT	
TECHNICIAN (SIGNAT	TURE):	REVIEWED BY:	
NAME (PRINT):	FREDERICK CHASNEN	2 ⁴⁰ TECHNICIAN	ALS
	CGSB LEVEL # SNT LEVEL # CGSB CGSB REG. NO /2560 CGSB	B LEVEL SNT LEVEL B REG. NO	